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### REMARKS

#### Pending Claims

New claims 39 and 40 have been added and recite specific embodiments of the present invention. Support for these new claims can be found throughout the specification and claims as originally filed, including, for example, paragraphs [0030] and [0040]. In addition, claim 12 has been amended to correct a typographical error. Finally, Applicant wishes to point out that, in their response dated August 22, 2006, claims 1 and 12, identified as "Original", were not the original claims as filed. To correct this inadvertent error in the record, Applicant has included the correct original claims 1 and 12 with this response and apologize for any inconvenience. No new matter has been added. Thus, claims 1-22 and 39-40 are pending.

#### Rejection of Claims under 35 U.S.C. § 102

The Examiner has rejected claims 12-15 and 20-22 under 35 U.S.C. § 102(e) as being anticipated by EP 1 316 588.

On page 2 of the Final Office Action, the Examiner states that EP 1 316 588 teaches pigment yellow 74 is obtained by coupling a coupler component comprising 2-methoxyacetoacetanilide and acetoacetanilide derivative having the recited structure, and diazo component obtained by diazotizing 2-methoxy-4-nitroaniline. The Examiner further states that the coupler component contains 0.1-10 mol% of acetoacetanilide derivative with respect to 2-methoxyacetoacetanilide and that the reference further teaches that pigment yellow 74 may be used in a printing ink that may be a water-based composition. The Examiner therefore concludes that the composition as taught by EP 1 316 588 appear to anticipate the claimed invention.

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The Examiner has also rejected claims 1-4, 7, and 8 under 35 U.S.C. § 102(b) as being anticipated by Jung et al. (U.S. Patent No. 5,559,216).

On page 3 of the Final Office Action, the Examiner states that Jung et al. teaches a disazo pigment which comprises a) azo coupling in an aqueous medium and in the absence of an organic solvent in a single step and b) adding at the latest immediately prior to the isolation of the disazo pigment at least one nonionic surfactant which has a cloud point in aqueous solution. The Examiner also states that the reference further teaches that the process is carried out by diazotizing one or more different amines of formula D-NH<sub>2</sub> and that the coupling reaction is carried out in a conventional manner in an aqueous medium using the recited steps. The Examiner further states that the reference teaches that the pigment may be suitable for printing inks and therefore concludes that the composition as taught by Jung et al. appears to anticipate the claimed invention.

Applicant respectfully disagrees. The present claims recite inkjet ink compositions comprising a liquid vehicle and a modified azo pigment, wherein the inkjet ink composition does not include a separate dispersant which primarily functions to obtain or maintain stability of the modified azo pigment or the inkjet ink composition. By comparison, while both EP 1 316 588 and Jung et al. relate to pigments prepared by a mixed coupling method, neither disclose, teach or suggest an inkjet ink composition which does not require the use of a separate dispersant for the pigment. For example, EP 1 316 588, which is discussed in paragraphs [0006]-[0007] of the present application, discloses that the azo pigments can be used in a printing ink, such in an offset or gravure ink, but specifies that these inks include various types of resins, such as a rosin-modified phenolic resin or various other rosins, which are dispersing aids for the pigment (see paragraphs [0018]-[0020]). Regarding Jung et al., this reference discloses a mixed coupling method that requires the use of a specific type of separate dispersant in order to prepare the pigment. For example, Jung et al. states that the pigments are "surprisingly preparable in an aqueous medium ... if one or more nonionic surfactants which have a cloud point in aqueous solution are added in the course of the preparation" (see column 1, lines 52-57 and column 2, lines 14-22), and various types of nonionic surfactants are

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described (see column 2, line 14 to column 3, line 41). Jung et al. also states that, while the resulting pigment can be washed with water after preparation, a temperature should be chosen that is above the cloud point of the nonionic surfactant so that there isn't "any significant effect on the surfactant content of the product" (see column 2, lines 23-29). Thus, the dispersant is a required component for the mixed coupled pigment.

Thus, while both EP 1 316 588 and Jung et al. describe mixed coupling methods for preparing pigments, each require the use of a separate dispersant for the pigment. Since neither reference disclose, teach, or suggest a mixed coupled pigment that does not include a separate dispersant, the printing inks are therefore not the inkjet ink compositions of the present invention. For this reason, Applicant believes that claims 12-15 and 20-22 are not anticipated by EP 1 316 588 and that claims 1-4, 7, and 8 are not anticipated by Jung et al. and therefore respectfully requests that these rejections be withdrawn.

Regarding new claims 39 and 40, each of these claims recite an inkjet ink composition comprising a liquid vehicle and a modified azo pigment, wherein the modified azo pigment forms a stable dispersion in the liquid vehicle without a separate dispersant. Since, as discussed above, both EP 1 316 588 and Jung et al. specifically disclose mixed coupled pigments that use of a dispersant for forming printing inks, Applicant therefore believes that new claims 39 and 40 are also not anticipated by either of these references.

#### **Rejection of Claims under 35 U.S.C. § 103(a)**

The Examiner has rejected claims 1-11 as being unpatentable over Platman et al. (U.S. Patent No. 5,246,494) in view of Johnson et al. (U.S. Patent No. 5,837,045).

On page 4 of the Final Office Action, the Examiner states that Platman et al. teaches a mixed coupled azo pigment prepared from 30 to 70 percent of two or more diazonium components and an organic coupling component that can be used in inks, plastics, and coatings. The Examiner further states that the mixed coupled azo pigments are prepared by initially diazotizing a mixture of two or more aromatic amine compounds, which can contain one or more

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acid groups (Y), to form a mixture of diazonium salts, which are coupled with a coupling component. The Examiner also states that, while Platman et al. is silent on the pigment being dispersible without a dispersant, the Examiner believes that, since the pigment inherently has acid groups attached to the surface, this would make it dispersible without a dispersant.

The Examiner notes that Platman et al. fails to teach an inkjet ink composition. However, the Examiner states that Johnson et al. teaches a surface modified colored pigment which comprises at least one aromatic group and at least one ionic or ionizable group or a mixture thereof, wherein the pigment may be an azo pigment, and also teaches that the pigment may be used in an aqueous system wherein the amount of water is in the range from about 50 to about 95 percent by weight. The Examiner therefore concludes that it would have been obvious to one of ordinary skill in the art to use the pigment as taught by Platman et al. in the ink composition of Johnson et al. because Johnson et al. teaches a similar pigment composition as disclosed by Platman.

On page 5 of the Final Office Action, the Examiner states that Applicant's arguments filed August 22, 2006 have been fully considered but are not persuasive. The Examiner states that, while Applicant has argued that they do not believe the pigment would be inherently dispersible, if a prima facie case of obviousness is established, the burden shifts to the applicant to come forward with arguments and/or evidence to rebut the prima facie case either in the specification, by counsel, or by way of an affidavit or declaration. However, the Examiner states that arguments of counsel cannot take the place of factually supported objective evidence.

Regarding claims 1-11, claim 1 recites an inkjet ink composition comprising a) a liquid vehicle and b) a modified azo pigment, wherein the modified azo pigment is the reaction product of at least one first diazonium reagent, at least one second diazonium reagent, and at least one azo coupler. The inkjet ink composition does not comprise a separate dispersant.

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By comparison, Platman et al. describes a mixed coupled azo pigment prepared from the combination of two or more diazonium components and an organic coupling component, and various methods of combining these components are shown. One of the diazonium components may be prepared from an aryl amine that contains a group Y, which may be a COOH or SO<sub>3</sub>H group. However, there is no disclosure, teaching, or suggestion that the pigments are dispersible without a separate dispersant, as recited in present claim 1. While this was acknowledged by the Examiner in the Final Office Action, the Examiner believes that such a property would be inherent to the pigments of Platman et al. because these pigments have acid groups attached to the surface of the pigment.

Applicant respectfully disagrees. Contrary to the Examiner's comments, the pigments of Platman et al. would not be inherently dispersible. The acid groups are not attached to the surface of the pigment but are rather present within the bulk of the pigment. Thus, the pigment of Platman et al. is not a surface-modified pigment, with groups attached to the surface providing the required dispersion stability. Rather, the pigment of Platman et al. is prepared following a conventional method known in the art for preparing azo pigments (see column 1, lines 16-57 of Platman et al.), with the exception that specific types of components are chosen. This general method of preparing a pigment, also described in the present application (see, for example, paragraph [0003]), is a method in which "the diazonium reagent reacts with the azo coupler to form an azo colorant species" (see paragraph [0015] of the present application). This species is a "building block" which forms the desired pigment. As a result, the mixed coupled pigment of Platman et al. comprises colorant species having acid groups that are within the bulk of the pigment and is therefore not a surface-modified pigment. For this reason, such pigments would not be expected to be inherently dispersible without a separate dispersant.

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Furthermore, while such pigments are described as being useful in inks, plastics, and coatings, there is no disclosure, teaching or suggestion of an inkjet ink composition comprising the mixed coupled azo pigment, and this has also been acknowledged by the Examiner in the Final Office Action. To cure this deficiency, the Examiner relies on Johnson et al. and concludes that it would have been obvious to one skilled in the art to use the pigment of Platman et al. in the ink composition of Johnson et al., thereby arriving at the present invention.

Applicant does not believe that one skilled in the art would combine Platman et al. and Johnson et al. because these references relate to very different types of pigments. In particular, Johnson et al. discloses surface-modified colored pigments and uses thereof. By comparison, Platman et al. relates to mixed coupled pigments that are not surface-modified pigments, as discussed in more detail above. Furthermore, one skilled in the art would not replace the pigments of Johnson et al. with those of Platman et al., particularly without an added dispersant, since there is no disclosure, teaching, or suggestion that the pigments of Platman et al. could be dispersed without a separate dispersant. In fact, when used in specific applications, Platman et al. teaches the use of resin soaps or other soluble resins in order to achieve desired properties (see column 8, line 56 to column 9, line 1). In particular, the examples describe polyamide ink systems for evaluating the pigment which include the described resins (see column 9, lines 16-32 and the Examples). Thus, one skilled in the art would not replace the pigments of Johnson et al. with those of Platman et al. without also including an added dispersant, and such a combination is not the inkjet ink composition of present claim 1.

Instead, Applicant believes that one skilled in the art may consider the pigments of Platman et al. to be potential starting colored pigments from which the surface-modified colored pigments of Johnson et al. could be prepared (see column 2, line 47 to column 3, line 9 of Johnson et al.). The resulting pigment may then be used in various compositions such as an inkjet ink. However, this is also not the inkjet ink composition of claim 1. Thus, even if these references were combined, the resulting combination would not be the presently claimed inkjet ink composition.

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Therefore, Applicant believes that claim 1 is patentable over Platman et al. in view of Johnson et al. Furthermore, claims 2-11, which depend directly or indirectly from claim 1, recite further embodiments of the present invention and, for at least the reasons discussed above, are also patentable over these references.

Applicant therefore believes that claims 1-11 are patentable over Platman et al. in view of Johnson et al. and respectfully requests that this rejection be withdrawn.

Regarding new claims 39 and 40, each of these claims recite an inkjet ink composition comprising a liquid vehicle and a modified azo pigment, wherein the modified azo pigment forms a stable dispersion in the liquid vehicle without a separate dispersant. As discussed above, one skilled in the art would not replace the pigments of Johnson et al. with those of Platman et al. without also including an added dispersant, based on the teachings of these references. Since such a combination is not the inkjet ink composition of present claim Applicant therefore believes that new claims 39 and 40 are also patentable over Platman et al. in view of Johnson et al.

#### Allowable Subject Matter

On page 6 of the Final Office Action, the Examiner states that claims 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

While Applicant is grateful for the allowable subject matter of claims 16-19, these claims have not been rewritten in independent form since, as discussed in more detail above, Applicant believes that the base claim (claim 12) is patentable over the references cited by the Examiner. Applicant also believes that the remaining pending claims should also be found allowable.


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In view of the foregoing, Applicant believes that this application is in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of this application, the Examiner is invited to call the undersigned.

Respectfully submitted,

By:   
Dr. Robert M. Amici  
Reg. No. 52,554  
CABOT CORPORATION  
Law Department  
157 Concord Road  
Billerica, MA 01821-7001  
(978)-670-6191

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